

# Karel CM224

## Call Record Listing

*Owner's  
Guide*



Edition 3.1

# KAREL

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# INTRODUCTION

*This Owner's Guide provides an overall reference on the CM224 Call Record Listing software facilities of KAREL MS224 Telephone System.*

*This guide is formed up of three main parts:*

- 1) In the first part, information on setup and activation of the program is given.*
- 2) In the second part, information about protection is given.*
- 3) In the third part, the program is explained with all its menus, options and facilities.*



# I. SOFTWARE INSTALLATION & RUNNING

Since CM224 is designed to run under Windows, it is installed under Windows as described below:

1. Insert the CM224 diskette into the floppy disk drive of your PC.
2. a) If your Windows program is older than Windows 95:
  - Choose **Run** option in **File** menu of Windows and then run **INSTALL.EXE** from the diskette, or
  - On the **File Manager** program, double click **INSTALL.EXE** from the diskette.
- b) If your Windows program is Windows 95 or better:
  - Choose **Run** option in **Start** menu of Windows and then run **INSTALL.EXE** from the diskette, or
  - On the **Windows Explorer** program, double click **INSTALL.EXE** from the diskette.
3. Answer the questions that CM224 Installation Program asks. While answering these questions, make sure that there are no hardware conflicts regarding the communication port number that you specify during the installation process.
4. To run the program, double click the CM224.EXE program icon, which has been automatically generated on your PC during installation.



## II. PROTECTION

CM224 uses a security plug for hardware protection with the principles described below:

1. Each CM224 is prepared to run with a unique security plug.
2. Each security plug has an 8-character alphanumeric serial number (e.g. D5FC8038). This serial number is printed on the stickers that are placed both on the security plug and on the CM224 diskette. You can see this serial number also when CM224 is running from the **ABOUT** option in **HELP** menu.

Corresponding to each security plug serial number, there also exists a 16-character alphanumeric serial number, which is called as *ACTIVATION KEY* (e.g. CM224 AK = 1A78FE6C78BD460D). This Activation Key is kept in the **KAREL.INI** file that exists in the CM224 diskette. **KAREL.INI** is copied to the PC during the installation process of the CM224 program.

3. Each time you run CM224, it checks whether the *Activation Key* stored in **KAREL.INI** file matches the serial number of the security plug. If not, you see a message as

Enter Activation Key

where you are required to enter the *Activation Key*. If you enter the correct *Activation Key*, **CM224.EXE** updates the content of **KAREL.INI** and then starts running. Otherwise, you see a message as

Wrong Activation Key!

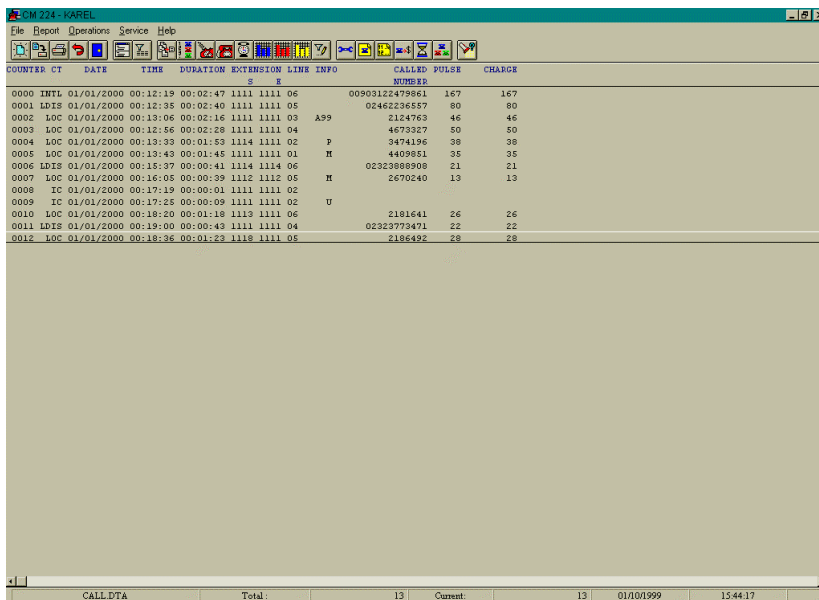
4. To prevent any possible problems that may occur while running CM224, it is highly recommended to take note of the serial number of the security plug and the *Activation Key*.





### III. CM224 PROGRAM

CM224 program consists of 5 menus: File, Report, Operations, Service and Help, as described in the following sections. The figure below shows a sample screen when you run CM224.



COUNTER	CT	DATE	TIME	DURATION	EXTENSION	LINE	INFO	CALLER	PULSE	CHARGE	
								NUMBER			
0000	INTL	01/01/2000	00:12:19	00:02:47	1111	1111	06	00903122479861	167	167	
0001	LDIS	01/01/2000	00:12:35	00:02:40	1111	1111	05	02462236557	80	80	
0002	LOC	01/01/2000	00:13:06	00:02:16	1111	1111	03	A39	2124763	46	46
0003	LOC	01/01/2000	00:12:56	00:02:28	1111	1111	04		4673327	50	50
0004	LOC	01/01/2000	00:13:33	00:01:53	1114	1111	02	P	3474196	38	38
0005	LOC	01/01/2000	00:13:43	00:01:45	1111	1111	01	M	4409851	35	35
0006	LDIS	01/01/2000	00:15:37	00:00:41	1114	1114	06		0232988908	21	21
0007	LOC	01/01/2000	00:16:05	00:00:39	1112	1112	05	M	2670240	13	13
0008	IC	01/01/2000	00:17:19	00:00:01	1111	1111	02				
0009	IC	01/01/2000	00:17:25	00:00:09	1111	1111	02	U			
0010	LOC	01/01/2000	00:18:20	00:01:19	1113	1111	06		2181641	26	26
0011	LDIS	01/01/2000	00:19:00	00:00:43	1111	1111	04		02323773471	22	22
0012	LOC	01/01/2000	00:18:36	00:01:23	1118	1111	05		2186492	28	28

CALL.DTA	Total:	13	Current:	13	01/01/999	154417
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Figure 1

#### III.1. FILE MENU

The File Menu consists of the following options:

1. **OPEN:**

By default, CM224 processes the call records in the file *CALL.DTA*. Therefore, you see the contents of *CALL.DTA* on the screen just after you run CM224. If you like, you can create other call record files as well (See *File Menu-Save Option*) and process these files.

This window allows you to open the call record files that you have already created. It is composed of following parts:

- a) **FILE NAME:** You can write the name of the file you want to open.
- b) **FILES:** You can see the list of files that are consistent with the file extension type selected in the **Filters** part. If you click a file, its name will appear in the **File Name** section. If you click the file twice, the file is opened, provided that it is in the appropriate format, so that the data in the file is displayed on the screen.
- c) **FOLDERS:** You can see the sub-folders in the current folder. If you click a sub-folder twice, it becomes the current folder and appears over the **Folders** part. If you click [...] twice, the folder including the sub-folder becomes the current folder.
- d) **FILTERS:** If you press the down-arrow key at the right of the frame, a list containing various file extension types, which you may need, is displayed. When you select an extension out of this list, the files in the current folder that are consistent with the selected extension type are listed in **Files** part.
- e) **DRIVE:** If you press the down-arrow key at the right of the frame, the drives available in your PC are displayed. You may move from one drive to another by clicking once on the drive.
- f) **OK:** If you press **OK** key, the file in the **File Name** section is opened if it is in the right format. If the selected file is a call record file belonging to the previous version CM224 programs that used to run under DOS, it is necessary to convert it to the proper format in order to be able to process it. For this, CM224 requests your confirmation, opening a new message window. Upon your confirmation, the old file is stored in another name and the converted file is named as the old one. The new name of the old file will be displayed in a message window.
- g) **CANCEL:** If you press **Cancel** key, file opening is canceled and **Open** window is closed.

## 2. **SAVE:**

This window allows you to store the displayed report of call records in a separate file.

As CM224 uses the file *CALL.DTA* to store data from the system, the number of records in this file increases in time and thus the speed of call record processing may decrease. Therefore you are highly recommended to separate a portion of the call records and store them in separate files at certain intervals depending on the system traffic.

This window is composed of the following parts:

- a) **FILE NAME:** You can write the name of the file you want to create. If you do not make any specifications, the file name extension will be DTA.
- b) **FOLDERS:** You can see the sub-folders in the current folder. If you click a sub-folder twice, it becomes the current folder and appears over the **Folders** part. If you click [...] twice, the folder including the sub-folder becomes the current folder.

- c) **DRIVE:** If you press the down-arrow key at the right of the frame, the drives available in your PC are displayed. You may move from one drive to another by clicking once on a drive.
- d) **DELETE FROM ACTIVE CALL FILE** and **PASSWORD:** If the displayed report does not include all the records in the active call record file, you have the option to delete these records so that they will not appear under active call record file again. In this case, CM224 asks you to enter the password (See *Service Menu-Configuration option*). If you enter the correct password, the new file of displayed call records is created and these records are deleted from the active call record file. Otherwise, the new file is created without deleting any records.
- e) **OK:** When you press **OK** key, the file in the **File Name** section is created. If a file with this name already exists, the records will be added to the end of this file upon your confirmation. The program will not make any addition to the files that are not chronologically organised, like the files sorted with respect to calling or called extensions from *Operations Menu-Sorting Option*.
- f) **CANCEL:** If you press **Cancel** key, saving is canceled and the **Save** window is closed.

### 3. **PRINT:**

This window transmits the data currently displayed on the screen (e.g. call records, histograms, summary call information, most frequently called numbers etc.) to the printer.

### 4. **PRINTER SETUP:**

You can use this window to determine the default printer.

In this window, the printers that are set up for Windows are listed and the current default printer is displayed. To change the *Default Printer*, you select a printer in the list and click **Set As Default**.

The **Exit** key closes the window.

### 5. **REPORT WINDOW:**

This window allows you to return to see the call records in the active file, when histograms, summary call information or most frequently called numbers of call records are on the screen.

The call records in the *Report Window* are listed in 12 columns where each column corresponds to a data field in the call record. (See Figure 1)

COUNTER	:	The number associated with this call record
CT	:	Call type : <b>IC</b> for incoming calls. <b>LOC</b> for local calls. <b>LDIS</b> for long distance calls. <b>INTL</b> for international calls.
DATE	:	Date of the call.
TIME	:	Starting time of the call.
DURATION	:	Duration of the call.
EXTENSION S	:	The number of the extension who has started the call.
EXTENSION E	:	The number of the extension who has ended the call.
LINE	:	The number of the line through which the call is established.
INFO	:	Additional call : <b>A</b> for Account Coded External and Forced type information Account Coded External Calls. <b>P</b> for Password Dialing From Any Extension. <b>M</b> for Marked External Calls. <b>U</b> for Missed Calls.
CALLED	:	
NUMBER	:	The external number called.
PULSE	:	The total number of metering pulses received throughout the call.
CHARGE	:	The total cost of the call.

A yellow star appears at the right of the called number, if the call is made by *Calling From Common Pool*.

If the called number is in the *Telephone Directory*, the name associated with this number is written in blue instead of the phone number (See *Telephone Directory*).

On the horizontal scroll bar at the bottom of the *Report Window*, from left to right, the active file name, total call records (in **Total** field), the number of the selected call record (in **Current** field), date and time are displayed.

#### 6. **ON-LINE WINDOW:**

This is the window where the data coming from the system is displayed in the same format as it is.

Even when you are busy with another activity in CM program or in any Windows program, the data is still displayed in the *On-Line Window*. The data is written simultaneously in an ASCII file, which is called *CALL*. Out of *CALL*, the call records are selected at certain intervals and transferred to the *CALL.DTA* file, which is the main file of CM224. The records other than the ones in the *CALL* file (like extension / line parameters, common pool records etc.) are transferred to another ASCII file called *INFO*. All this transfer operation is automatically performed without your intervention.

#### 7. **EXIT:**

Allows you to exit CM224. CM224 terminates after storing the latest configuration information and window dimensions.

## III.2. REPORT MENU

The Report Menu consists of the following options:

1. **ALL RECORDS:**

Allows you to see all call records in the active file on the screen. By default, the active file is *CALL.DTA* (see *File Menu-Open Option*).

2. **RUN FILTER FILE:**

Allows you to run the filter files that you have previously created using *Filter Info* (See *Operations Menu- Filter Info Option*).

The window is composed of the following parts:

- a) **FILE NAME:** You can write the name of the filter file you want to run.
- b) **FILES:** You can see the list of filter files that are consistent with the type selected in the **Filters** section. If you click a file, its name will appear in the **File Name** section. If you click the file twice, the filter in this file is run as described in **OK** part below.
- c) **FOLDERS:** You can see the sub-folders in the current folder. If you click a sub-folder is twice, it becomes the current folder and appears over the **Folders** section. If you click [...] twice, the folder including the sub-folder becomes the current folder.
- d) **FILTERS:** If you press the down-arrow key at the right of the frame, you see a list containing two filter types (**Filter Files** and **Linked Filter Files**). When you select a filter type out of this list, all the filter files in the current folder, which are consistent with this selected filter type, are listed. If you select a *Linked Filter File*, you see the *Result Window* before the filtering is applied to the call records in the *Report Window*. (See *Result Window* in *Operations Menu-Link Filters Option*.)
- e) **DRIVE:** If you press the down arrow key at the right of the frame, you can see the list of drives defined in your PC. You may move from one drive to another by clicking once on a drive.
- e) **OK:** When you press **OK** key:
  - If the file is a *Filter File*, the output of the file is displayed on the window.
  - If the file is a *Linked Filter File*, the filter files that form the *Linked Filter File* are listed. If you press **Print** key in this window, the output of the *Linked Filter File* is sent to the printer.
- g) **CANCEL:** If you press **Cancel** key the process is terminated and the *Run Filter File* window is closed.

3. **NEW FILTER:**

Allows you to define filters. The figure below shows a sample *New Filter* window.

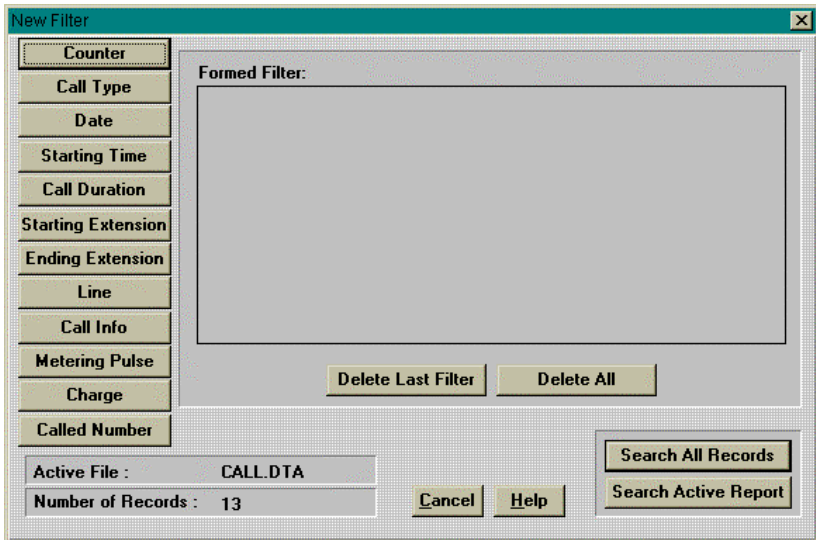


Figure 2

The window is composed of the following parts:

a) **FILTER DEFINITION WINDOWS:**

- You can filter the call records with respect to Counter, Call Type, Date, Starting Time, Call Duration, Starting Extension, Ending Extension, Line, Call Info, Metering Pulse, Charge, Called Number fields of the *Report Window*.
- When you choose a filtering option (other than Call Type, Call Info and Called Number), you see the pop-up filter definition window that shows the following options:
  - = : Records with values equal to the specified value are filtered.
  - ≠ : Records with values different than the specified value are filtered.
  - < : Records with values less than the specified value are filtered.
  - <= : Records with values less than or equal to the specified value are filtered.
  - > : Records with values greater than the specified value are filtered.
  - >= : Records with values greater than or equal to the specified value are filtered.

Commas (,) may be used to separate values when they are more than one, whereas hyphens (-) may be used between lower and upper limits. As an example, you may enter 01,02,05 as the value for the *Line* field in order to filter out calls accomplished on lines 01, 02, 05 or enter 1111-1119 to the *Starting Extension* field in order to get records initiated by the extensions in-between 1111 and 1119.

For the calls established through DISA lines, character **D** followed by the line number is produced in the *Starting Extension* field. You can filter these calls by entering the value D\* in *Starting Extension* field as the filter value.

- If you choose Date, Starting Time and Call Duration as filtering options, there are three extra sub-fields in the pop-up window that you enter the filter values. For *Date* these fields are Day, Month and Year; for the *Starting Time* and *Call Duration* they are Hours, Minutes and Seconds. You may enter values in these fields after clicking the required field to bring the cursor there. You may also use the TAB key to move over these fields, once the cursor is on one of these fields.
- If you choose Call Type as the filtering option, you see the following options on the pop-up window that you enter the filter value:
  - Outgoing Call (Local).
  - Outgoing Call (Long Distance).
  - Outgoing Call (International).
  - Incoming Call.
  - Intercom (This option is reserved for future use).

You can select more than one call type by clicking the boxes of the call types you want.

- If you choose Call Info as the filtering option, you see the following options on the pop-up window that you enter the filter value:
  - Calls (With Password): Password Dialing From Another Extension.
  - Calls (Without Password).
  - Calls (Marked): Marked Calls.
  - Calls (Not Marked).
  - Calls (Missed): Missed Calls.
  - Calls (Answered): Answered incoming calls.
  - = Calls (with Code – equal to): Account Coded Calls.
  - ‡ Calls (with Code – not equal to): Account Coded Calls.

If you select Account Coded Calls options, you are also required to enter the code (01 to 99). You can enter "\*" as the second digit of the code to neglect this digit (e.g. if you enter 9\*, the *Account Coded Calls* with the code in-between 90-99 are filtered).

- If you choose Called Number as the filtering option, you see the following options on the pop-up window that you enter the filter value:
  - Numbers in the Common Pool.
  - Numbers that are not in the Common Pool.
  - Numbers in the Telephone Directory.
  - Numbers that are not in the Telephone Directory.
  - = Others (equal to).
  - ‡ Others (not equal to).

If you select Others option, you are required to enter the telephone number or the name of the number that is defined in *Telephone Directory*. You can use "\*" to replace several digits as well.

(E.g. a. If you enter 0212\*, the calls with called numbers starting with 0212 are reported.

b. If you enter **ICT\***, the calls with the called numbers belonging to the users whose name start with **ICT** are reported.)

- If you like, you can make a combination of filters using **AND** or **OR** keys in the pop-up filter definition window.
- You can press **OK** key when you are done with your filter definition.
- If you have made invalid entries, CM224 asks you to correct these entries.
- b) **FORMED FILTER**: You can see all filter values that you have entered. If you like to cancel the last filter value or all filter values, you can press **Delete Last Filter** or **Delete All** keys respectively and restart defining filters.
- c) **ACTIVE FILE & NUMBER OF RECORDS**: You can see the active call records file over which filtering is established and the number of the call records in this file.
- d) **SEARCH ALL RECORDS**: All records in the active file that are consistent with the filter are reported.
- e) **SEARCH ACTIVE REPORT**: The records in the previously generated report that are consistent with the filter are reported.
- f) **Ok**: If you press **OK** key, the filter is run and you see the filtered records on the screen.
- g) **CANCEL**: If you press **Cancel** key the process is terminated and the *New Filter* window is closed.

### III.3. OPERATIONS MENU

The Operations Menu consists of the following options:

#### 1. SUMMARY CALL INFO:

Summary Call Info window contains statistical information about the report shown on the screen.

- l) If the records on the *Report Window* are not sorted yet (see *Operations Menu-Sorting Option*), you see a standard *Summary Call Info* window. The figure below shows a sample *Summary Call Info* window.



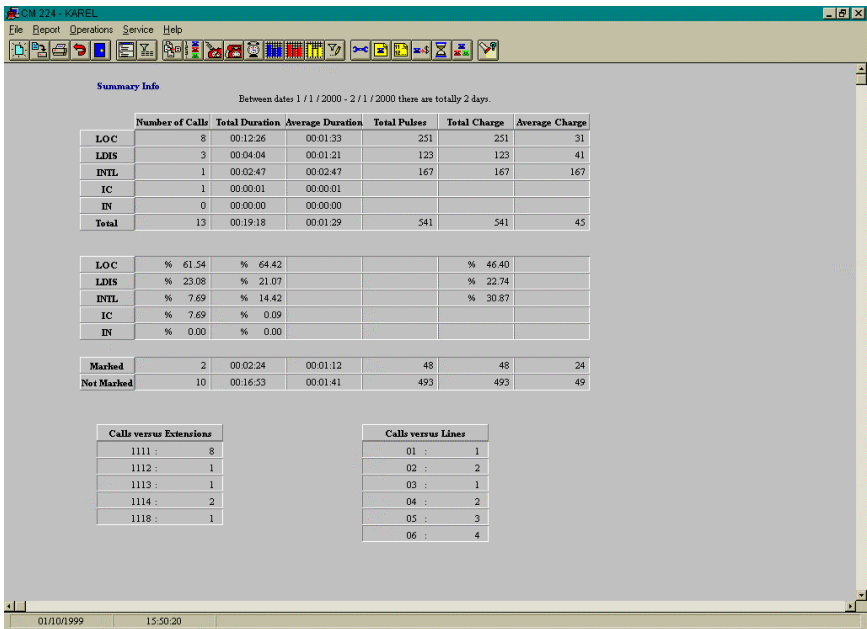


Figure 3

The starting and ending dates of the calls and number of days in this period are displayed at the top of the screen.

Five tables are shown in this window:

- Call types: Local (**LOC**), long distance (**LDIS**) and international (**INTL**), incoming (**IC**) and intercom (**IN**) calls are listed. Total number of calls (**Number of Calls**), total duration of the calls (**Total Duration**), average duration of the calls (**Average Duration**), total number of metering pulses (**Total Pulses**), total charge of the calls (**Total Charge**) and average charge of the calls (**Average Charge**) are listed as additional information to the call types. As the incoming and intercom calls are free of charge, **Total Number of Metering Pulses**, **Total Charge** and **Average Charge** fields are left blank for these calls.
- Percentages: **Number of Calls**, **Total Duration** and **Total Charge** information for each call type is given in percentage. **Total Charge** field is again blank for incoming and intercom calls.
- Marked and Not Marked Calls: **Marked** and **Not Marked** calls are shown with the same information fields in the first table.
- Calls Versus Extensions: The number of calls initiated by the extensions are listed with respect to extension numbers.
- Calls Versus Lines: The number of calls established through the lines are listed with respect to line numbers.

- II) If the records on the *Report Window* are already sorted (see *Sorting*), you see a standard *Sorted Summary Call Info* window. The figure below shows a sample *Sorted Summary Call Info* window.

EXTENSION NO	EXTENSION NAME	NUMBER OF CALLS	TOTAL CHARGE
1111	OPERATOR	8	415
1112	MARY	1	13
1114	david	2	59

Figure 4

- a) **EXTENSION NO:** The number of the extension.
- b) **EXTENSION NAME:** The name of the extension, which is defined in *Service Menu-Extensions Option*. This name is retrieved from the extension file (EXTENSIO). This section is left empty for the extensions without an assigned name (see *Service Menu-Extensions Option*).
- c) **NUMBER OF CALLS:** Total number of calls made by the extension.
- d) **TOTAL CHARGE:** Total charge of the calls made by the extension.

You can send both *Summary Call Info Window* and *Sorted Summary Call Info Window* to the printer from *File Menu-Print Option*, or you can return back to the *Report Window* by *File Menu-Report Window Option*.

## 2. **MOST FREQUENTLY CALLED NUMBERS:**

Allows you to have a list that is sorted in the descending order of number of calls; i.e. the most frequently called number appears at the very top.

The list consists of two columns: **Telephone No** where the telephone numbers are listed and **Number of Calls** made to these numbers are listed.

You can send either *Most Frequently Called Numbers Window* to the printer from *File Menu-Print Option*, or you can return back to the *Report Window* by *File Menu-Report Window Option*.

When you send the *Most Frequently Called Numbers Window* to the printer, *Number Of Records To Be Printed Window* is displayed. In this window, you are required to enter a number indicating the number of lines of the list to be printed. This number should not be bigger than the one displayed in **Total** section on the horizontal scroll bar. If you enter a number greater than the one displayed in **Total** section, the message "**Entry beyond limits!**" is displayed. If you enter a valid number and then press **OK** key, the desired number of lines are printed. If you press **Cancel** key, the lines will not be sent to the printer.

### 3. **SORTING (By Starting Extension & By Ending Extension):**

You can sort the call records in the Report Window with respect to the starting or ending extensions. CM224 can sort the call records only for the extensions that are defined in Service Menu-Extensions Option, with respect to their definition order. You can apply consecutive sorting as well; e.g. you can apply *Sorting By Ending Extensions* to the records that have previously been sorted with respect to the starting extensions.

You can send the sorted call records to the printer from *File Menu-Print Option*. You can as well save the sorted records from *File Menu-Save Option*. In that case, since the chronological order is lost in the sorted files, histograms cannot be obtained from the sorted call record files.

When you send the sorted call records to the printer, *Limits* window, where you are required to enter the limits for the number of the extensions, is displayed. The *Limits* window consists of the following sections:

**NUMBER OF EXTENSIONS:** The total number of sorted extensions (starting or ending extension according to the type that the report is sorted). This number is automatically displayed as *Limits* window opens.

**FIRST EXTENSION NUMBER:** Must be in-between 1 and the *Number Of Extensions* displayed at the top of the window. Otherwise, the message "**Entry beyond limits!**" is displayed.

**LAST EXTENSION NUMBER:** Must be in-between *First Extension Number* and *Number Of Extensions* displayed at the top of the window. Otherwise, the message "**Entry beyond limits!**" or "**Upper limit cannot be less than lower limit!**" is displayed.

**OK:** Prints the information for the extensions with numbers in-between the **First** and **Last Extension Number**.

**CANCEL:** Cancels printing.

### 4. **HISTOGRAM BY HOURS:**

Allows you to have a graph of the call records in the *Report Window* with respect to hours. The graph is composed of 24 bars where each bar stands for one-hour time period. E.g., the bar numbered 05 shows the calls made between 05:00 to 05:59.

You can send the graph to the printer from *File Menu- Print Option*, or you can return back to the *Report Window* by *File Menu-Report Window Option*.

5. **HISTOGRAM BY DAYS:**

Allows you to have a graph of the call records in the *Report Window* with respect to days. The graph is composed of 7 bars where each bar stands for a day of the week.

You can send the graph to the printer from *File Menu- Print Option*, or you can return back to the *Report Window* by *File Menu-Report Window Option*.

6. **HISTOGRAM BY MONTHS:**

Allows you to have a graph of the call records in the *Report Window* with respect to months. The graph is composed of 12 bars where each bar stands for a month of the year.

To display the other years, you can use the arrow keys at the bottom of the screen or the **Others** key. The left arrow moves to the previous year while the right arrow moves to the next year whereas the **Others** key displays the years that are in the file and allows to make a selection. After this selection, **Year** is updated and the graph for this year is displayed.

You can send the graph to the printer from *File Menu- Print Option*, or you can return back to the *Report Window* by *File Menu-Report Window Option*.

7. **HISTOGRAM BY DATES:**

Allows you to have a graph of the call records in the *Report Window* with respect to dates. The graph is composed of 31 bars where each bar stands for the day of the month. E.g., the bar numbered 05 shows the calls made on 5<sup>th</sup> day of the month of the year displayed.

To display the other years, you can use the arrow keys or the **Others** key across the **Year** section. The left arrow moves to the previous year while the right arrow moves to the next year whereas the **Others** key displays the years that are in the file and allows to make a selection. After this selection, **Year** is updated and the graph for the month displayed on **Month** section for this year is returned.

To display the other months, you can use the arrow keys or **Others** keys across the **Month** section. The left arrow moves to the previous month while the right arrow moves to the next month whereas the **Others** key displays the months of the year and allows to make a selection. After this selection, **Month** is updated and the graph for the year displayed on **Year** part for this month is returned.

You can send the graph to the printer from *File Menu- Print Option*, or you can return back to the *Report Window* by *File Menu-Report Window Option*.

## 8. **FILTER INFO:**

Allows you to see the filtering information that is used to generate the call records on the *Report Window* via the filters that are defined in *Report Menu-New Filter Option*. If consecutive filtering has been applied to the *Report Window*, all the filter information is listed each of which is separated with a short line. In this case, the filter that is appearing at the top has been the first filter applied.

The window consists of the following parts:

- a) **OK:** If you press **OK** key, Filter Info Window is closed.
- b) **SAVE:** If you press **Save** key, *Save Filter Window* is opened.  
This window allows you to store the filter displayed in the *Filter Info Window* in a separate file. You may retrieve the saved filter files from the *File Menu- Run Filter File Option* and apply it to the currently active file.  
The *Save Filter Window* contains 4 main sections.  
**File Name:** You can enter the name of the file to be saved. CM224 automatically assigns FLT as the extension to the filter files.  
**Folders:** You can see the sub-folders in the current folder. If you click a sub-folder twice, it becomes the current folder and appears at the up right corner of the window. If you click [...] twice, the folder including the sub-folder becomes the current folder.  
**Drive:** If you press the down-arrow key at the right of the frame, the drives defined in your PC are displayed. You may move from one drive to another by making a selection out of this list.  
**OK:** When you press **OK** key, the filter is saved under the name displayed in the **File Name** section.  
**Cancel:** If you press **Cancel** key, filter saving is canceled and *Save Filter Window* is closed.

## 9. **LINK FILTERS:**

Allows you to link the filter files that you have previously saved in *Operations Menu-Filter Info Option*. Using this facility, you can print the common output of more than one filter simultaneously.

The window consist of the following parts:

- a) **FOLDERS:** You can see the sub-folders in the current folder. If you click a sub-folder twice, it becomes the current folder and appears below **Folders** section. If you click [...] twice, the folder including the sub-folder becomes the current folder.
- b) **FILTER FILES:** You can see the list of the filter files under the current folder. Here, you can select the filter file to be linked. If you click a filter file, *Filter Type* window is opened. In this window, you can specify the notes and options for the filter file to be linked.  
*Filter Type* window consists of the following sections:

**Options:** This section contains three options, which are *detailed report*, *summary report* and *detailed & summary reports*. You may specify here the type of the report generated.

**Notes:** You may specify the statement to appear as the heading of the report in the **Notes** section. You may leave this section blank or enter at most 60 characters.

**OK:** If you press **OK** key, the name of the selected filter file is added to the linked filter files along with the information in the **Options** and **Notes** sections.

**Cancel:** If you press **Cancel** key, Filter Type Window is closed.

- c) **SELECTED FILTER FILES:** In this section the selected filter files along with the folder they reside are listed.
- d) **DRIVE:** If you press the down-arrow key at the right of the frame, the drives defined in your PC are displayed. You may move from one drive to another by making a selection out of this list.
- e) **LINK:** When you press **Link** key, if at least one filter file is selected, *Save Linked Filter* window is displayed. *Save Linked Filter* window consists of the following parts:

**File Name:** You can write the name of the new file. CM224 automatically assigns BFL as the extension to linked filter files.

**Folders:** You can see the sub-folders in the current folder. If you click a sub-folder twice, it becomes the current folder and appears at the up right corner of the window. If you click [...] twice, the folder including the sub-folder becomes the current folder.

**Drive:** If you press the down-arrow key at the right of the frame, the drives defined in your PC are displayed. You may move from one drive to another by clicking once on a drive.

**OK:** When you press **OK** key, the linked filter file is saved under the name displayed in the **File Name** section. After pressing **OK** key, *Result Window* is opened with the following sections:

- **OK:** Closes the window.
- **Print:** The linked filter is applied to the *Report Window* and the result is sent to the printer.

**Cancel:** If you press **Cancel** key, filter saving is canceled and *Link Filters Window* is closed.

- f) **CANCEL:** If you press **Cancel** key, the filter linking is canceled and *Link Filters Window* is closed.

## 10. **DELETE FILTERS:**

Allows you to delete the filter files that you have previously created.

The window consists of the following parts:

- a) **FILE NAME:** You can select a filter file to be deleted.
- b) **FILES:** You can see the list of files that are in the current folder, which are consistent with the filter selected in the **Filters** section. You can select a file by clicking its name. Then, the selected file name appears in the **File Name** section. If you click a file name twice, it is deleted.

- c) **FOLDERS:** You can see the sub-folders in the current folder. If you click a sub-folder twice, it becomes the current folder and appears over the **Folders** section. If you click [..] twice, the folder including the sub-folder becomes the current folder.
- d) **FILTERS:** If you press the down-arrow key at the right of the frame, a list containing two filter types (**Filter Files** and **Linked Filter Files**) is displayed. If you select a filter type out of this list, the files that are consistent with this type are displayed in the **Files** section.
- e) **DRIVE:** If you press the down-arrow key at the right of the frame, the drives defined in your PC are displayed. You may move from one drive to another by clicking once on a drive.
- f) **OK:** When you press **OK** key, the file appearing in **File Name** is deleted upon your confirmation.
- g) **CANCEL:** When you press **Cancel** key, file deleting is canceled and *Delete Filters* window is closed.

### III.4. SERVICE MENU

The Service Menu consists of the following options:

#### 1. **CONFIGURATION:**

Allows you to see the information related to CM224. This information is stored in the file *KONSOL.CFG*. By default, *KONSOL.CFG* is resident in the memory of your PC with its default values (see **OK** part below).

The *Configuration* window consists of the following parts:

- a) **PASSWORD:** You can set the password-related properties of CM224 from this section. This section is composed of the following parts:
  - New:** Allows you to change your password. When you press **New** key, *Password Window* is displayed. This window consists of the following sections:
    - Enter Old Password: You are required to enter your old password.
    - Enter New Password: You are required to enter your new password.
    - Confirm New Password: You are required to re-enter your new password.
    - **OK:** Your password is changed.
    - **Cancel:** Your password is not changed and *Password* window is closed.
  - Ask Password At Startup?:** If you choose **Yes**, your password will be required each time CM224 is run.
- b) **COM PORT NO:** This is the part where the serial port number of the PC-System connection is specified. You are required to select 1, 2, 3 and 4 for COM1, COM2, COM3 and COM4, respectively.
- c) **CHARGE:** This is the section that specifies the unit metering pulse price. You can enter at most a 9-digit value.
- d) **COMPANY NAME:** You may write the name of your company (at most 29 characters) in this section. The *Company Name* appears at the top of each page of all reports output from the printer.

- e) **Ok:** When you press **OK** key, all the changes performed in the configuration window are stored in the file *KONSOL.CFG* and the window is closed. In case *KONSOL.CFG* is somehow destroyed or deleted, CM224 creates a new *KONSOL.CFG* file with the following default values:
- |                          |   |       |
|--------------------------|---|-------|
| Password                 | : | Karel |
| Ask Password At Startup? | : | Yes   |
| COM Port No              | : | 2     |
| Charge                   | : | 0     |
| Company Name             | : | Karel |
- f) **CANCEL: Cancel** key cancels all the changes and the *Configuration* window is closed.

## 2. CONVERSION TO ASCII FORMAT:

Allows you to copy a file of call records to another file in ASCII format so that you can process the call records by another database program.

When you enter *Conversion To ASCII Format* window, you are expected to enter the name of the call records file in the box displayed at the upper part of the window. You should enter the name of the ASCII file in the box displayed at the lower part of the window. If you like, you can specify the name of the folder while you are entering the file names as well.

In the ASCII file that you create, each record is seen in a different line and the data fields are separated with TAB characters. You may, for example, view this file in EXCEL. For this you need to open the file and specify that data fields are separated with TAB characters.

## 3. TELEPHONE DIRECTORY:

Allows you to create a file containing names along with the corresponding phone numbers. The data you enter in *Telephone Directory* can be composed of at most 2000 records and these records are stored in the file *PHONEDIR*. When CM224 receives the call records from the system, it tries to find a match between the called number and the numbers in the file *PHONEDIR*. If such a match is found, CM224 writes the name stored in *PHONEDIR* instead of the called number.

The *Telephone Directory* window consists of the following parts:

- a) **NAME:** The names corresponding to the telephone numbers (at most 16 characters).
- b) **TELEPHONE NUMBER:** Can be at most 16 digits.
- c) **CURRENT:** The number of the selected record.
- d) **TOTAL:** The total number of records in *PHONEDIR*.
- e) The name of the folder where *PHONEDIR* is stored.
- f) **ADD:** Allows you to add data to *PHONEDIR*.
- g) **DELETE:** Deletes the selected record from *PHONEDIR* after having your confirmation.
- h) **UPDATE:** Allows you to update the selected record.
- i) **PRINT:** Sends the contents of *PHONEDIR* to the printer.
- j) **SAVE:** Stores the changes you have implemented on *PHONEDIR*.



- k) **MOVE:** Makes CM224 compare the call records of the selected call record files with *PHONEDIR*. If a match between the called number and the numbers in the file *PHONEDIR* is found, CM224 updates the selected call record files so that the names stored in *PHONEDIR* are written instead of the called numbers.
- l) **EXIT:** Closes the *Telephone Directory Window*. If you have made any changes, CM224 asks for your confirmation to save your changes before exiting the window.

If you select **Add** or **Update**, *Telephone Directory Add/Update* window is displayed with the following parts:

**Name:** You are required to enter the name corresponding to the telephone number (at most 16 characters).

**Telephone Number:** You are required to enter the telephone number of at most 16 digits.

**OK:** When pressed, the data you have entered is shown in the list of *Telephone Directory* window.

**Cancel:** When pressed, no additions or updates are made to the list of the *Telephone Directory* window.

#### 4. **EXTENSIONS:**

Allows you to create a file containing names, numbers and group information of extensions. The data you enter is stored in the file *EXTENSIO* and CM224 uses this file to make sorting (see *Operations Menu-Sorting Option*).

The *Extensions* window consists of the following parts:

- a) **EXTENSION NUMBER:** The numbers of the extensions.
- b) **EXTENSION NAME:** The name corresponding to the extension numbers. Can be at most 40 characters.
- c) **EXTENSION GROUP:** The group names to define the extensions (e.g. Department Name). Can be at most 20 characters.
- d) **CURRENT:** The number of the selected record.
- e) **TOTAL:** Total number of records in *EXTENSIO*.
- f) The name of the folder where *EXTENSIO* is stored.
- g) **ADD:** Allows you to add data to *EXTENSIO*.
- h) **DELETE:** Deletes the selected record from *EXTENSIO* after having your confirmation.
- i) **UPDATE:** Allows you to update the selected record.
- j) **SORT:** Lets you sort the records of *EXTENSIO* with respect to the extension number, name or group and then save the file in the sorted form.
- k) **PRINT:** Sends the contents of *EXTENSIO* to the printer.
- l) **SAVE:** Stores the changes you have implemented in *EXTENSIO*.
- m) **EXIT:** Closes the *Extensions Window*. If you have made any changes, CM224 asks for your confirmation to save your changes before exiting the window.

If you select **Add** or **Update**, *Extensions Add/Update* window is displayed with the following parts:

**Extension Number:** You are required to enter the extension number.

**Extension Name:** You are required to enter name (at most 40 characters).

**Extension Group:** You can enter a group name (at most 20 characters) to define the extension.

**OK:** When pressed, the data you have entered is shown in the list of *Extensions* window.

**Cancel:** When pressed, no additions or updates are made to the list of *Extensions* window.

If you select **Sort**, *Extension Sorting* window is displayed with the following parts:

**Sort By Extension No:** If you choose this option, *Extensions* window is sorted in the ascending order with respect to the extension numbers.

**Sort By Extension Name:** If you choose this option, *Extensions* window is sorted in the ascending order with respect to the extension names.

**Sort By Extension Group:** If you choose this option, *Extensions Window* is sorted in ascending order with respect to the extension groups.

**OK:** Closes *Extensions Window*. Before closing the window, CM224 asks for your confirmation to apply the sorting option you have chosen and to update *EXTENSIO*.

**Cancel:** Sorting is not applied.

5. **TARIFF TABLE:** See *Call Charging In CM224*.

6. **TIME TABLE:** See *Call Charging In CM224*.

7. **LINES:** See *Call Charging In CM224*.

8. **PREFIXES:**

Allows you to create a file containing STD / ISD codes and the LCR prefixes. The data you enter is stored in the file *PREFIX* and CM224 uses this file to calculate the cost of the calls and to determine type of the calls established using the LCR algorithm.

The *Prefixes* window consists of the following parts:

a) **STD CODE:** The STD codes. Can be at most 4 digits. Up to 50 different STD codes can be entered. Commas (,) can be used to separate different STD codes.

b) **ISD CODE:** The ISD codes. Can be at most 4 digits. Up to 50 different ISD codes can be entered. Commas (,) can be used to separate different ISD codes.

c) **LCR PREFIXES:** The LCR prefixes. Up to 50 different prefixes can be entered. For the efficient applications, it is recommended to enter the LCR prefixes that are defined by the System Supervisor using the *Least Cost Routing* program in this part.

d) **ADD:** Allows you to add data to *PREFIX*.

e) **DELETE:** Deletes the selected LCR Prefix from *PREFIX* after having your confirmation.

- f) **UPDATE:** Allows you to update the selected LCR prefix. (Clicking the LCR prefix shown in the **LCR PREFIXES** part operates the same.)
- g) **SAVE:** Stores the changes you have implemented in **PREFIX**.
- h) **EXIT:** Closes the *Prefixes* window. If you have made any changes, CM224 asks for your confirmation to save your changes before exiting the window.

If you select **Add** or **Update**, *LCR Prefixes Add/Update* window is displayed with the following parts:

**Prefix:** You are required to enter an LCR prefix.

**OK:** When pressed, the prefix you have entered is shown in the list of *Prefixes* window.

**Cancel:** When pressed, no additions or updates are made to the list of the *Prefixes* window.

### **Determination Of Call Types With Prefixes Window:**

If the number dialed begins with one of the LCR prefixes, and the succeeding digits are the same as any STD code then the call is determined as a **long distance** call. If the succeeding digits are the same as any ISD code then the call is determined as an **international** call. Else, it is determined as a **local** call.

E.g.

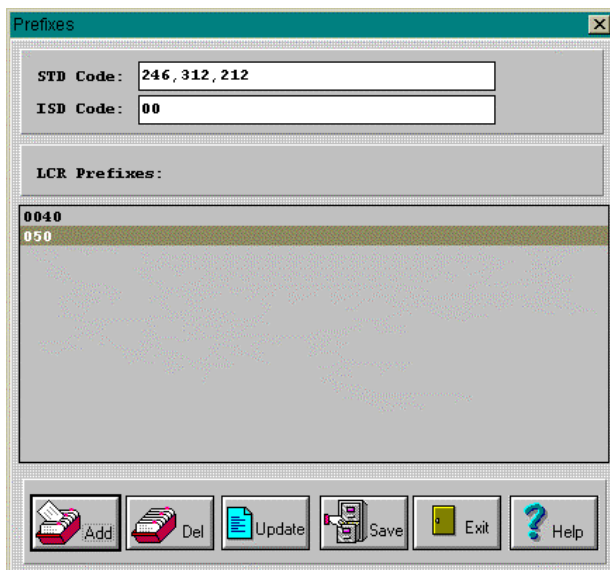


Figure 5

If the *Prefix* window is filled as Figure 5 and if the System Supervisor activates the Least Cost Routing program such that:

- Numbers starting with 246, 312 and 212 are sent to the C.O. as 0040246\*, 0040312\* and 0040212\*.
- Numbers starting with 00 are sent to the C.O. as 05000\*.

then CM224 will keep the call records as follows:

- Numbers that are sent to C.O. as 0040246\*, 0040312\* and 0040212\* are recorded as long distance calls as the LCR prefix (0040) at the beginning of the numbers are ignored and the rest of the dialed numbers begin with the STD codes (246, 312 and 212).
- Numbers that are sent to the C.O. as 05000\* are recorded as international calls as the LCR prefix (050) at the beginning of the numbers are ignored and the rest of the dialed numbers begin with the ISD code (00).

### **Calculation Of Call Charges With Prefixes Window:**

See *Call Charging In CM224*.

## 9. **PROTECTION:**

This option is presented in order to avoid unauthorized people from using CM224.

Once you select *Protection Option*, the *Protection window* where you are required to enter your password is displayed. After you enter your password and press **OK** to exit the *Protection Window*, you will be required to enter your password each time you run CM224. (*Password Section-Configuration Option* of the *Service Menu* performs the same operation as well.)

## **III.5. HELP MENU**

The Help Menu consists of the following options:

### 1. **HELP:**

Displays the *Help Window* related to your current position on CM224.

### 2. **HOW TO USE HELP:**

Displays the whole *Help Window* that includes all the necessary information for CM224.

### 3. **ABOUT:**

Displays CM224 software version and the security plug serial number of CM224.

## IV. CALL CHARGING IN CM224

As well as processing the call records and providing statistical services for these call records, CM224 program offers you charging methods for the calls. This section gives information about how CM224 calculates the cost of the calls.

Before going through the rest of this section, please pay special attention to the general notes below:

1. If you want to have the cost of the calls calculated in the call records, you should make sure that you have developed the charging method for the CM224 program.

(Even when a charging method is entered to the MS224 system by the supervisor (e.g. Tariff Table), CM224 always checks its own charging method to calculate the cost of the calls.)

2. You can develop two different charging methods for CM224:

- a) Tariff Table: In this case, no charging methods have to be entered to the MS224 system by the System Supervisor.
- b) Metering Pulse Detection: In this case, the system must be calculating pulses used throughout the outgoing calls; i.e. either
  - Real metering pulses should be existing on the lines and the System Supervisor must have defined unit pulse prices, or
  - The System Supervisor must have defined unit pulse prices and must have activated *Tariff Table* and *Time Table* programs for the lines where there are no real metering pulses.

In this method, CM224 writes the number of the metering pulses that the system calculates into the **Pulse** field on the *Report Window*.

In both cases, CM224 does not use the call charging methods used by the MS224 system. Instead, a separate method must be developed for the CM224. To do this, the first step that you should go through is to define the charging method for the lines, from *Service Menu-Lines Option* and to enter the unit metering pulse price from *Service Menu-Configuration Option*.

While forming the charging method in CM224, all options that you will need are under the *Service Menu* of the program. The following sections give information about these options.

## IV.1. LINES OPTION

Allows you to define the charging method for the lines. This information is stored in the file *LINES*.

The *Lines* window consists of the following parts:

1. **LINE NO:** The number of the line.
2. **CHARGING METHOD:** The charging method that is selected for each line. (See **Update** for selecting a charging method.)
3. The name of the folder where *LINES* is stored.
4. **LINE NO** (at the right of the *Lines Window*): The number of the selected line.
5. **TOTAL NUMBER OF LINES:** Total number of the lines.
6. **UPDATE:** Allows you to change the charging method of the selected line. (Clicking the line shown in the **LINE No** part operates the same.) When you press **Update** key, *Line Parameter Entry* window where you choose a charging method is displayed. This window is composed of the following parts:
  - Line No:** The number of the selected line.
  - None:** If you choose this option, the calls established through this line will not be charged.
  - By Metering Pulse:** If you choose this option, the calls established through this line are charged by metering pulses. CM224 will calculate the cost of the calls as below:  
$$\text{Call charge} = \text{Unit pulse price} \times \text{Total number of metering pulses}$$
where the *Unit Pulse Price* was previously defined in *Configuration Option-Service Menu*.
  - By Tariff Table:** If you choose this option, the calls established through this line are charged by *Tariff Table*. The method for calculating the cost is explained in *Tariff Table Option*.
  - OK:** Closes the *Line Parameter Entry Window* and changes the charging method of the line according to your choice.
  - Cancel:** Charging method is not updated.
7. **SAVE:** Stores the updates in *LINES*. If *LINES* is somehow damaged or deleted, no charging method will be applied on any of the lines.
8. **EXIT:** Closes *Lines Window*. Before exiting the window, CM224 checks whether you have made any updates without saving and if so, it asks for your confirmation to store these updates in *LINES*.

## IV.2. TARIFF TABLE OPTION

Allows you to develop a *Tariff Table* to be used by CM224 while calculating the cost of the calls established through the lines. Note that CM224 calculates the cost of the calls only on the lines for which you have selected *Tariff Table* charging method in *Service Menu-Lines Option*.

CM224 offers you two alternatives to form *Tariff Table* and these two alternatives are stored in two different files. Each of these *Tariff Table* files can contain at most 400 records and you can choose any of these two alternatives that reflects the charging method of your Central Office best.

### **Tariff Table-Alternative 1:**

You are required to enter the unit prices with respect to call prefixes and unit intervals. Tariff Table-Alternative 1 is stored in the file *TARMETH1*. The figure below shows a sample *Tariff Table* window when you develop Tariff Table-Alternative 1.

Call Prefix	Unit Time	Tariff 1	Tariff 2	Tariff 3	Tariff 4
0	002	20	25	35	50
00	001	30	40	50	100
212	005	10	15	18	20

Current : 3  
Total : 3

D:\TEST224\CM224\TARMETH1

Add Del Update Print Save Exit Help

Figure 6

The records in *TARMETH1* are composed of the following data fields:

**Call Prefix:** The prefix (at most 10 characters).

**Unit Time:** Unit interval (in seconds- at most 9 digits).

**Tariff 1-4:** Unit price (at most 9 digits) corresponding to the **Unit Time**. CM224 decides the tariff it should use according to the time intervals defined in *Service Menu-Time Table Option*.

While transferring the call records from *CALL* to *CALL.DTA* (see *File Menu-On-Line Window Option*):

- CM224 looks for a match between the called number and defined call prefixes in *TARMETH1*. If no match is found, the cost of the call is not calculated. If CM224 finds more than one match, the charging is made with respect to the longest call prefix in match.

- Upon finding a match between the called number and the call prefixes, CM224 calculates the cost of the calls as below:

$$\text{Call charge} = \text{Unit pulse price} \times \frac{\text{Call duration}}{\text{Unit time}}$$

where unit time and unit pulse price are defined in **Unit Time** and **Tariff 1-4** fields of *TARMETH1*, respectively; and the result of  $\frac{\text{Call duration}}{\text{Unit duration}}$  is rounded up to the next higher integer.

**Tariff Table-Alternative 2:**

You are required to enter the unit intervals with respect to call prefixes and unit prices. Tariff Table-Alternative 2 is stored in the file *TARMETH2*. The figure below shows a sample *Tariff Table* window when you develop Tariff Table-Alternative 2.

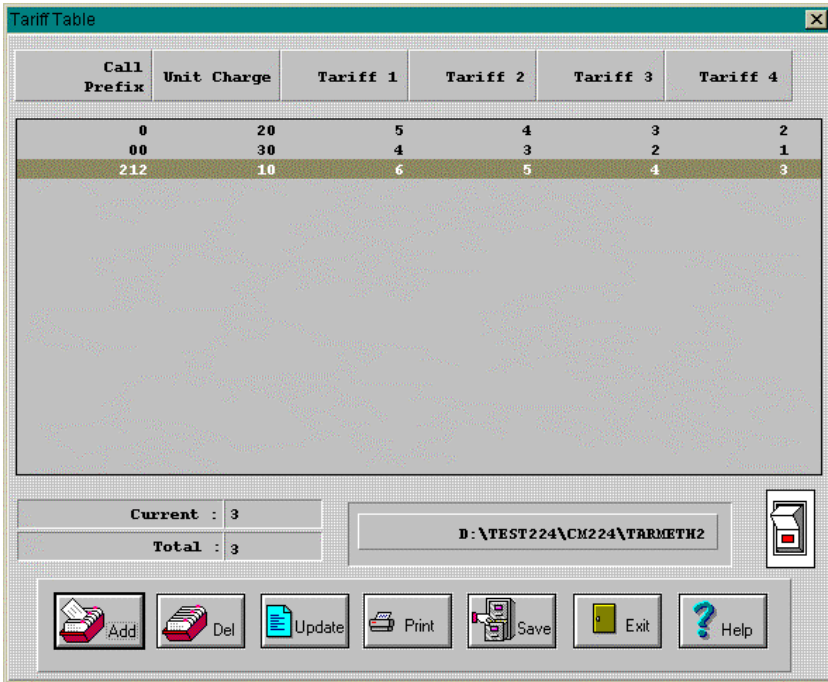


Figure 7

The records in *TARMETH2* are composed of the following data fields:

**Call Prefix:** The prefix (at most 10 characters).

**Unit Charge:** Unit price (at most 9 digits).

**Tariff 1-4:** Unit interval (in seconds-at most 9 digits) to be charged with the **Unit Charge**. CM224 decides the tariff it should use according to the time intervals defined in *Service Menu-Time Table Option*.



While transferring the call records from *CALL* to *CALL.DTA* (see *File Menu-On-Line Window Option*):

- CM224 looks for a match between the called number and defined call prefixes in *TARMETH2*. If no match is found, the cost of the call is not calculated. If CM224 finds more than one match, the charging is made with respect to the longest call prefix in match.
- Upon finding a match between the called number and the call prefixes, CM224 calculates the cost of the calls as below:

$$\text{Call charge} = \text{Unit pulse price} \times \frac{\text{Call duration}}{\text{Unit time}}$$

where unit time and unit price are defined in **Tariff 1-4** and **Unit Charge** fields of *TARMETH2*, respectively; and the result of  $\frac{\text{Call duration}}{\text{Unit duration}}$  is rounded up to the next higher integer.

You can switch between *TARMETH1* and *TARMETH2* by using the button at the right of the *Tariff Table Window*. CM224 uses the file (*TARMETH1* or *TARMETH2*) that is displayed before you exit the *Tariff Table Window*.

Except for the *TARMETH1 / TARMETH2* data field, *Tariff Table Window* consists of the following parts:

1. The name of the folder where *TARMETH1/TARMETH2* is stored and the button for you to switch between these two files.
2. **CURRENT**: The number of the selected record.
3. **TOTAL**: Total number of the records in the selected *Tariff Table* file (*TARMETH1* or *TARMETH2*).
4. **ADD**: Allows you to add records to *TARMETH1* or *TARMETH2*.
5. **DEL**: Allows you to delete records from *TARMETH1* or *TARMETH2*.
6. **UPDATE**: Allows you to change the data for the selected record. (Clicking the selected record operates the same.)
7. **PRINT**: Sends *TARMETH1* or *TARMETH2* to the printer.
8. **SAVE**: Stores the updates in *TARMETH1* or *TARMETH2*.
9. **EXIT**: Closes *Tariff Table Window*. Before exiting the window, CM224 checks whether you have made any updates without saving and if so, it asks for your confirmation to store these updates in *TARMETH1* or *TARMETH2*.

If you select **Add** or **Update**, *Tariff Table Add/Update Window* is displayed with the following parts:

**Call Prefix**: The prefix (at most 10 characters).

**Unit Time** (if *TARMETH1* is active): Unit interval (in seconds- at most 9 digits) between the charge pulses.

**Unit Charge** (if *TARMETH2* is active): Unit price (at most 9 digits).

**Tariff 1-4**: a. If *TARMETH1* is active, four different unit prices (at most 9 digits).

b. If *TARMETH2* is active, four different unit intervals (in seconds-at most 9 digits) to be charged with the **Unit Charge**.

**OK**: The data you have entered is shown in the list of *Tariff Table Window*.

**Cancel:** No additions or updates are made to the list of the *Tariff Table Window*. If you have not saved the modifications that you implemented, then CM224 asks for your confirmation before closing this window.

### **Cost Calculation Of The Calls Established Via LCR Algorithm**

If the *Least Cost Routing* is activated by the System Supervisor and if there is data in file *PREFIX*; then the field **Call Prefix** must contain both the LCR prefix as well as STD code and ISD code, which are all entered under *Prefix* window. (See *Service Menu-Prefixes Option*.)

For example :

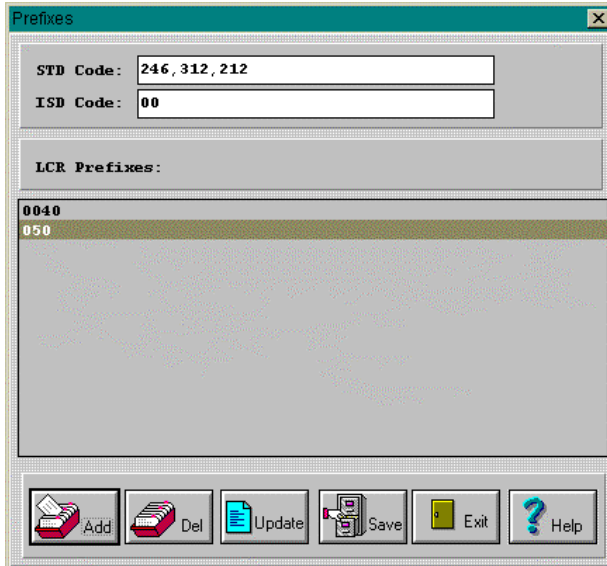


Figure 8

If the *Prefix* window is filled as Figure 8 and if the System Supervisor activates the Least Cost Routing program such that:

- Numbers starting with 246, 312 and 212 are sent to the C.O. as 0040246\*, 0040312\* and 0040212\*.
- Numbers starting with 00 are sent to the C.O. as 05000\*,

then the fields **Call Prefix** (both for Alternate 1 and Alternate 2) must contain the digits 0040246, 0040312, 0040212, 05000 as shown in the figure below.

Call Prefix	Unit Time	Tariff 1	Tariff 2	Tariff 3	Tariff 4
05000	3	10	20	30	40
0040212	10	1	2	3	4
0040246	10	1	2	3	4
0040312	10	1	2	3	4

Current :	4
Total :	4

D:\TEST224\CM224\TARMETH1








 Add
  Del
  Update
  Print
  Save
  Exit
  Help

Figure 9

### IV.3. TIME TABLE OPTION

Allows you to develop a *Time Table* to be used by *Tariff Table* while calculating the cost of the calls. *Time Table* is taken into account only on the lines for which *Tariff Table* is determined as the charging method in *Service Menu-Lines Option* of CM224. The *Time Table* information is stored in the file *TIMETBL*. The figure below shows a sample *Time Table* window.



Figure 10

*Time Table Window* is mainly composed of a table with the days of the week in one axis and hours of the day in the other. At the entries of the table, where a day intersects an hour of the day, there may be numbers between 1 to 4.

(These numbers correspond to **Tariff 1-4** fields of the *TARMETH1* or *TARMETH2* that you have previously defined in *Service Menu-Tariff Table Option*.) These numbers determine which tariff should be used for each day of the week and for any time in this day.

You can change the numbers on this table using your mouse. If you click a number by the right key of the mouse, the number increments whereas it decrements if you click it by the left key of your mouse. Thus, you can decide which one of the **Tariff 1-4** fields of *TARMETH1* or *TARMETH2* is to be used at any hour of the day from the *Time Table*.

At the lower part of the window, you can see the interval that the number you selected out of the *Time Table* belongs to.

(E.g. If you click the intersection square of Sunday and 12, you see **\* Sunday : 12:00 – 13:00 \*** on the lower part of the window. If the number on this square is 2, a call established between 12:00-13:00 on Sundays will be charged by using **Tariff 2** field of the *TARMETH1* or *TARMETH2*.)

When you press **OK** key at the bottom of the window, the changes you have made are stored in *TIMETBL*. (If *TIMETBL* is somehow destroyed or deleted, all entries on the *Time Table* take their default value 1, so **Tariff 1** is active.)

When you press **Cancel** key, your updates are not stored in *TIMETBL* and *Time Table Window* is closed.